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NO. 125 P. 1

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Unit 1634 -USPTO

From: Christopher Sappenfield ☎ (510) 814-2786
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Date: September 6, 2006

No. of pages: 20 (incl. cover sheet)

Re: US Patent Application No. 09/823,649
Filing Date: March 30, 2001
Attorney Reference: 022101-001800US
Client Reference: 19052-US1

Dear Examiner Goldberg:

Thank you for taking the time to discuss the above-identified application with me. As we discussed, attached for your reference are four appendices with information intended to illustrate that the phrase "polymerase domain" is known in the art and the relative positioning of exonuclease and polymerase domains (also known as "regions") in certain exemplary sequences in EC 2.7.7.7 (same enzyme classification number recited in the Bergquist publication). More specifically, the attached appendices include as follows:

- (1) Appendix A (2 pages) is an excerpt from a well-known text (Stryer, Biochemistry, 4th Ed.) that refers to polymerase domains and describes the basic architecture of DNA polymerase I.
- (2) Appendix B (4 pages) is a database entry printout for DNA Polymerase I (EC 2.7.7.7) corresponding to accession number P00582, which also describes the domain structure of the enzyme.
- (3) Appendix C (3 pages) is a database entry printout for DNA Polymerase I (EC 2.7.7.7) corresponding to accession number AAR11876, which also describes the relative positioning of domains of the enzyme. Please note that the submission appears to have been made by at least some of the same authors as on the Bergquist publication. See, e.g., the graphical description entitled "Conserved Domains".
- (4) Appendix D (6 pages) is a database entry printout for DNA Polymerase I (EC 2.7.7.7) corresponding to accession number O52225, which also describes the relative positioning of domains (regions) of the enzyme. For example, the entry describes the polymerase domain (region) as being located at amino acid positions 412-833 in the disclosed sequence. There are also various links

Diagnostics

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associated with this entry that provide additional information about the domain structure (see, www.expasy.ch/cgi-bin/niceprot.pl?DPO1_THEFI).

If I can provide any additional clarification, please contact me at 510-814-2786. Thanks again for your consideration.

Best regards,



Chris Sappenfield
Reg. No. 45,073

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